

Amendments to the Drawings

The attached drawing sheet includes changes to Fig. 4 and Fig. 5. This sheet replaces the original sheet including Fig. 4 and Fig. 5, have been amendment to show the socket (2) and the bolts (7) of claim 20.

Attachments: Replacement Sheet

REMARKS

The Office Action of August 20, 2010, has been carefully studied. Claims 2-11 and 21-25, currently appear in this application. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicant respectfully requests favorable reconsideration and formal allowance of the claims.

Drawings

Submitted herewith are corrected drawing sheets for Figures 4 and 5, showing the socket (2) and the bolts (7) of claim 20.

The specification has been amended to include element 7, a bolt.

Rejections under 35 U.S.C. 112

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

This rejection is respectfully traversed.

The claims have been amended and have been added as new claims 21-25 to positively set forth the elements and point out their structure relationship to each other.

Art Rejections

Claims 1, 2, 5-8 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer, DE 100 19 007.

This rejection is respectfully traversed.

Hammer discloses a hydrogen generator which reforms natural gas. This device extracts noncombustible CO₂ from exhaust gas and reforms it by pyrolysis in a catalyst to convert methane to CO and hydrogen. In this process, the catalyst is only heated by the exhaust gas. The carbon dioxide is obtained by an additional membrane at another, cooler, remote location. This apparatus adds carbon dioxide and hydrogen from additional natural gas to the fuel of a combustion unit.

In the presently claimed regenerator, reclaim gases are obtained from the catalyst by an adjoining high temperature resistant diffusion membrane. Here, no additional natural gas is reformed, and there is no pyrolysis. The combustible reclaim gas is obtained from the combustion unit directly from the hot operated catalyst. There is no requirement for a second membrane.

It is respectfully submitted that the Hammer apparatus would not lead one to the regenerator claimed herein. The Hammer apparatus functions completely differently from the regenerator claimed herein. Hammer discloses a reformer that produces pure hydrogen, whereas in the regenerator claimed herein, combustion exhaust gases are regenerated to produce additional fuel.

The operation of the two devices are different, and one skilled in the art, reading Hammer, would not be led to the presently claimed regenerator.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer and further in view of Abe, US 4854530.

This rejection is respectfully traversed.

Abe adds nothing to Hammer to render claims 3 and 4 obvious, because Abe merely teaches that the claimed ceramic substances are common. Abe does not cure the deficiencies in Hammer described above.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer and further in view of Fedor, US 3998599 or Cornelier, US 1595711.

This rejection is respectfully traversed.

As noted above, the Hammer apparatus is designed for reducing emissions during cold start of an engine by mixing hydrogen with the fuel. This is completely different from the presently claimed regenerator, which deals with combustion exhaust gases. Because these two devices are so different from each other, one skilled in the art would have no motivation to add baffle plates to the apparatus of Hammer.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer and further in view of Abe, Toh et al., US 4220625.

This rejection is respectfully traversed.

Because the claimed regenerator is completely different from the device disclosed by Hammer, modifying the Hammer apparatus to include catalytic carrier bodies in the form of lamellated blocks having passages located between individual plates coated with metallic catalysts would still not lead to the presently claimed regenerator.

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammer in view of Frost et al., US 2002/0124723.

As the present amendment cancels claims 18-20, this rejection is now moot.


It is noted that the prior art made of record and not relied upon is merely considered to be pertinent to applicant's disclosure.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.
Attorneys for Applicant

By


Anne M. Kornbau
Registration No. 25,884

AMK:srd
Telephone No.: (202) 628-5197
Facsimile No.: (202) 737-3528
G:\BN\B\Back\lohberg1\Pto\2010-10-28DraftAmendment.doc